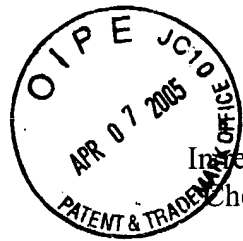


17/1/05



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor Patent Application of:
Chengjun Liu

Group Art Unit: 2624

Application No.: 10/766,121

Examiner: Wenpeng Chen

Filing Date: January 27, 2004

For: FACE DETECTION METHOD AND
APPARATUS

INFORMATION DISCLOSURE STATEMENT

Mail Stop: Amendments
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant respectfully submits this Information Disclosure Statement, identification of the information, and copies thereof if required pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98 in order to comply with the duty of disclosure. The enclosed Form PTO SB/08A/B identifies the references of which Applicant is aware. The Examiner is respectfully requested to consider the information herein and make it of record in the subject application.

☐ By checking this paragraph, this Information Disclosure Statement is being filed pursuant to 37 C.F.R. § 1.97(b) within three months of the filing date of the application or before the application has received a substantive Office Action. Accordingly, no fee is necessary; however, should the Patent Office determine that a fee is due, the Commissioner is authorized to charge any such fee to Deposit Account No. 11-0223.

☒ By checking this paragraph, this Information Disclosure Statement is being filed pursuant to 37 C.F.R. § 1.97(c) before the mailing date of a Final Action, a Notice of Allowance, or close of prosecution. Accordingly included herewith is:

☒ a check to cover the fee under 37 C.F.R. § 1.17(p), the Commissioner is authorized to charge any further fee to Deposit Account No. 11-0223; or

☐ a statement below under 37 C.F.R. § 1.97(e).

Application No.: 10/766,121

Attorney Docket No.: 436/5

☐ By checking this paragraph, this Information Disclosure Statement is being filed pursuant to 37 C.F.R. § 1.97(d) after the mailing date of a Final Action, a Notice of Allowance, or close of prosecution, but before payment of the issue fee. Accordingly included herewith are:

- ☐ a check to cover the fee under 37 C.F.R. § 1.17(p), the Commissioner is authorized to charge any further fee to Deposit Account No. 11-0223; **and**
- ☐ a statement below under 37 C.F.R. § 1.97(e).

Statement Pursuant to 37 C.F.R. § 1.97(e):

☐ By checking this paragraph, the undersigned states that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior the filing of this Information Disclosure Statement; or

☐ By checking this paragraph, the undersigned states that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent in a counterpart foreign application, and, the undersigned, after making reasonable inquiry, believes that no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Dated: April 5, 2005

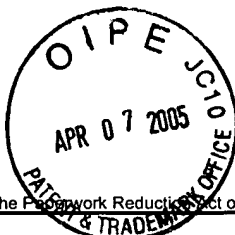
I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS: Amendments, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on date shown below.

Dated: April 5, 2005

Signature: Ute H. Wojtkowski
Printed Name: Ute H. Wojtkowski

Respectfully submitted,

By Leslie S. Garmaise
Leslie S. Garmaise, Reg. No. 47,587
KAPLAN & GILMAN, L.L.P.
900 Route 9 North, Suite 104
Woodbridge, New Jersey 07095
(732) 634-7634
Attorneys for Applicant



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/766,121
Filing Date	January 27, 2004
First Named Inventor	Chengjun Liu
Art Unit	2624
Examiner Name	Wenpeng Chen
Attorney Docket Number	436/5

Sheet 1 of 3

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BA	International Search Report, dated 3/21/2005.	
	BB	CHELLAPPA et al.; Human And Machine Recognition of Faces: A Survey; Proc. IEEE; May, 1995; Vol. 83; No. 5; pp. 705-740.	
	BC	DASS et al.; Markov Face Models; The Eighth IEEE Int'l Conf. on Computer Vision; 2001; pp. 680-687.	
	BD	HEISELE et al.; Face Detection In Still Gray Images; A.I. Memo AIM-1687; Artificial Intelligence Laboratory; May 2000; pp. 1-25.	
	BE	HJELMAS et al.; Face Detection: A Survey; Computer Vision and Image Understanding; 2001; Vol. 83; pp. 236-274.	
	BF	P. HO; Rotation Invariant Real-Time Face Detection And Recognition System; A.I. Memo AIM-2001-010; 05/31/01; Artificial Intelligence Lab.; pp. 1-24.	
	BG	HSU et al.; Face Detection In Color Images; Int'l Conference on Image Processing; 2001; pp. 1046-1049.	
	BH	LIU et al.; Evolutionary Pursuit And Its Application To Face Recognition; IEEE Trans. Pattern Analysis and Machine Intelligence; 2000; Vol. 22; No. 6; pp. 570-582.	
	BI	LIU et al.; Robust Coding Schemes For Indexing And Retrieval From Large Face Databases; IEEE Trans. on Image Proc.; 2000; Vol. 9; No. 1; pp. 1-16.	
	BJ	LIU et al.; A Shape And Texture Based Enhanced Fisher Classifier For Face Recognition; IEEE Trans. on Image Proc.; 2001; Vol. 10; No. 4; pp. 1-35.	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known			
		Application Number	10/766,121		
		Filing Date	January 27, 2004		
		First Named Inventor	Chengjun Liu		
		Art Unit	2624		
		Examiner Name	Wenpeng Chen		
Sheet	2	of	3	Attorney Docket Number	436/5

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BK	LIU et al.; Gabor Feature Based Classification Using The Enhanced Fisher Linear Discriminant Model For Face Rec.; IEEE Trans. on Image Proc.; 2002; Vol 11; No. 4; pp. 1-36.	
	BL	MOGHADDAM et al.; Probabilistic Visual Learning For Object Representation; IEEE Trans. Pattern Analysis and Machine Intelligence; 1997; Vol. 19; No.7; pp. 1-31.	
	BM	MOHAN et al.; Eample-Based Object Detection In Images By Components; IEEE Trans. Pattern Analysis and Machine Intelligence; 2001; Vol. 23; No. 4; pp. 349-361.	
	BN	PAPAGEORGIOU et al.; A General Framework For Object Detection; Int'l Conference on Computer Vision; Jan. 1998; pp. 555-562.	
	BO	PENTLAND et al.; View-Based And Modular Eigenspaces For Face Recognition; Proc. Computer Vision and Pattern Recognition; 1994; pp. 84-91.	
	BP	PHILLIPS et al.; The Feret Database And Evaluation Procedure For Face-Recognition Algorithms; Image and Vision Computing; 1998; Vol. 16; pp. 295-306.	
	BQ	Qian et al.; Object Detection Using Hierarchical MRF and MAP Estimation; Proc. Computer Vision and Pattern Recognition; 1997; pp. 186-192.	
	BR	ROWLEY et al.; Neural Network-Based Face Detection; IEEE Trans. Pattern Analysis and Machine Intelligence; 1998; Vol. 20; No. 1; pp. 1-28.	
	BS	ROWLEY et al.; Rotation Invariant Neural Network-Based Face Detection; Proc. IEEE Computer Society Conf. on Computer Vision and Pattern Recognition; 1998; pp. 38-44.	
	BT	SAMAL et al.; Automatic Recognition And Analysis Of Human Faces And Facial Expressions: A Survey; Pattern Recognition; 1992; Vol. 25; No. 1; pp. 65-77.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/766,121
		Filing Date	January 27, 2004
		First Named Inventor	Chengjun Liu
		Art Unit	2624
		Examiner Name	Wenpeng Chen
Sheet 3 of 3	Attorney Docket Number	436/5	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BU	SCHNEIDERMAN et al.; Probabilistic Modeling Of Local Appearance And Spatial Relationships For...; Proc. IEEE Computer Society Conf. on Computer Vision and...; 1998; pp. 1-7.	
	BV	SCHNEIDERMAN et al.; A Statistical Method For 3D Object Detection Applied To Faces And Cars; Proc. IEEE Computer Society Conf. on Computer Vision and Pattern..., 2000; pp 1-6.	
	BW	SUNG et al.; Learning And Example Selection For Object And Pattern Detection; A.I.T.R. No. 1572; MIT; Jan. 1996; pp. 1-195.	
	BX	SUNG et al.; Example-Based Learning For View-Based Human Face Detection; IEEE Trans. Pattern Analysis and Machine intelligence; 1998; Vol. 20; No. 1; pp. 39-51.	
	BY	VIOLA et al.; Rapid Object Detection Using A Boosted Cascade Of Simple Features; Proc. IEEE Computer Society Conf. on Computer Vision and Pattern Recognition; 2001; pp. 1-9.	
	BZ	YANG et al.; Face Detection Using Mixtures Of Linear Subspaces; Proc. Fifth Int'l Conf. on Automatic Face and Gesture Recognition; March 2000; pp. 1-7.	
	CA	A. YUILLE; Deformable Templates For Face Recognition; Journal of Cognitive Neuroscience; 1991; Vol. 3; No. 1; pp. 59-70.	
	CB	K. FUKUNAGA; Introduction to Statistical Pattern Recognition; Second Edition, pp. 51-253 and 399-507.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.